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TO: W. R. Bacon

Mastodon-Highland Bell Mines Ltd.

FROM: J. C. Stephen

June 22nd, 1964

RE: JERICO MINES CURRENT EXPLORATION

The writer paid a visit to the Jericho Mines Highland Valley property on Monday, June 15th. Mr. Crowhurst had suggested this trip and had written Mr. Neville Lohn requesting their co-operation. As a result the writer was given a very complete resume of the exploration program and all records were made available except those assay results which were filed in Vancouver or were not yet available from the assayers.

ACCESS:

The Jericho camp is located in the Ashcroft-Merritt road approximately $9\frac{1}{2}$ miles east of the Bethlehem Mine road. The adit and current scene of operations is reached by a two mile road running southerly from the Ashcroft-Merritt road about $\frac{3}{4}$ mile west of the Jericho camp. The access road was rough and muddy at this time.

ADIT:

The exploration adit was driven about 880' through the top of a knoll or ridge. This adit had been mapped in detail and plans of the fracture system are available on a scale of 20' = 1 inch.

The adit is presently inaccessible due to caving and is boarded up at the adit entrance. The break-through on the opposite side of the hill was looked into, but was not in a safe condition.

SAMPLING:

The adit back was slashed in 10 foot lengths to provide material for assay purposes.

Each slash was estimated to provide 15 tons of rock. This was crushed and cut down to two tons. This was recrushed to about $\frac{3}{4}$ " and separated repeatedly to provide two samples each of about 10 pounds weight. One of these samples was assayed and the second retained. Thus, a sample has been taken to represent each 10 foot length of the mineralized sections of the adit. The central more or less barren portion was not slashed.

SAMPLING (Cont'd)

Test holes were drilled at 20 foot (?) intervals into both walls of the adit in a direction normal to the strike of the main mineralized fractures. Sludge samples were collected for each 10 foot section of these holes and assayed. These holes indicated a zone of about 150' in length by 20' in width with an average value of 1.44% copper located north of the easterly mineralized section of the adit. This is understood to be the zone referred to in recent George Cross News Letters, where the average value was given as 1.54% copper.

SURVEYING AND RECORDS:

No surveying as such had been done on the property. A transit and chain survey of the I.P. lines, drill holes, adit, topography, etc. is just now being started.

Records of the original diamond drilling were, at best, skimpy. Correlation of magnetic, geochemical, and other data has hardly been attempted.

Plans and sections on 100 scale, 40 scale and 20 scale are being prepared but only a small percentage of the preparation desirable has so far been done.

Sludge test holes are not plotted, assay plans of the adit do not appear to exist. Records of current diamond drilling are much superior to anything previously available.

DIAMOND DRILLING:

Current diamond drilling (Rupert Drilling, ^{WIRE}~~wire~~ line) is being done much more carefully, efficiently and cheaply than that originally done. Costs are assumed to be - Current drilling = \$6.00 per ft.
Former drilling = \$9.00 per ft.

Drilling is being done on parallel sections at 100 foot intervals oriented approximately normal to the main mineralized fractures. These holes are being carefully spotted, logged, sampled and surveyed. In spite of bad ground conditions the wire line method is giving fairly good recovery.

Zones of mineralized fractures are being intersected and some narrow veins of spectacular mineralization similar to those in the adit have been encountered. No list of average assay results was made, but in all cases average values over any considerable width depend heavily on one or two good assays together with a number of sub-marginal assays. No consistent zones of ore grade can yet be outlined. Resurvey of all workings and diamond drilling may allow correlation of what now appear to be rather scattered mineralized zones. Location of some of the original drilling is not known within 100 feet so far.

GEOLOGY:

The mineralized zones at present appear to consist of mineralized tension fractures in the hanging wall of a fault striking N 62° E and dipping 63° N.W. The structure as yet is rather vague, but a number of zones are indicated and some may be expected in the footwall of the fault.

Just as one series of fractures is offset by a second in the adit, we may expect, from I.P. results and air photos, that the fault presently being encountered in drilling could be offset by later faults.

It is the writer's impression that a small tonnage of ore may be outlined by current work that could be shipped perhaps to the Bethlehem mill. No indication of an independent open-pit or underground operation is yet in sight.

Alteration, characterized by epidote is present in the vicinity of the fault and also perhaps beyond the extremities of the mineralized zones. Mineralization is best indicated by the presence of sericitic alteration.

GEOPHYSICS:

A claim group to the south west, termed the "Gaza Property" is under control of Mr. Hatch. An I.P. survey by Hunting has just started here in the vicinity of some old trenches. About 12 days work was contemplated.

Upon completion of this some additional I.P. was planned on the Jericho property to the east of the adit.

Further investigation is also planned in this direction by means of diamond drilling.

Respectfully submitted.



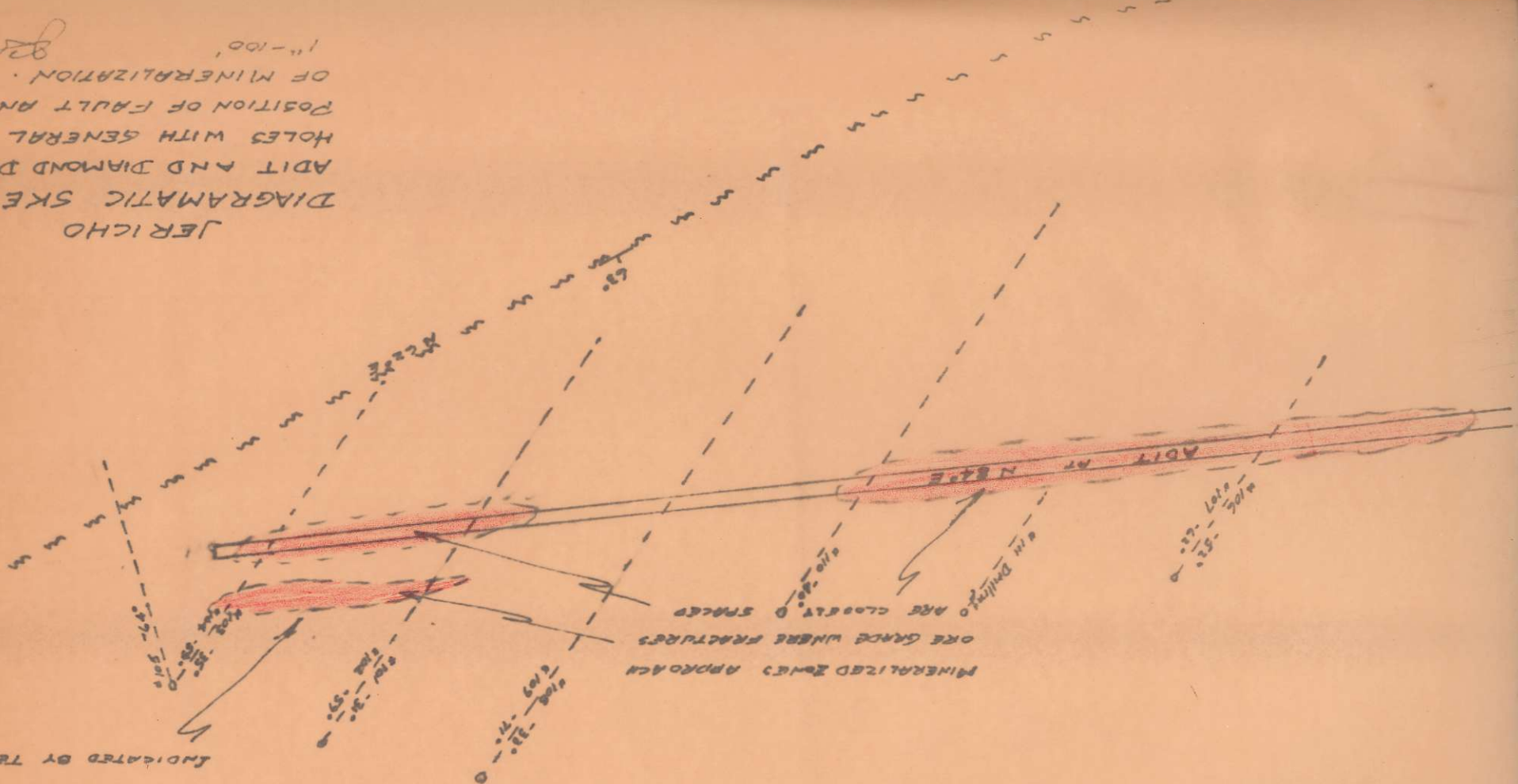
J. C. Stephen

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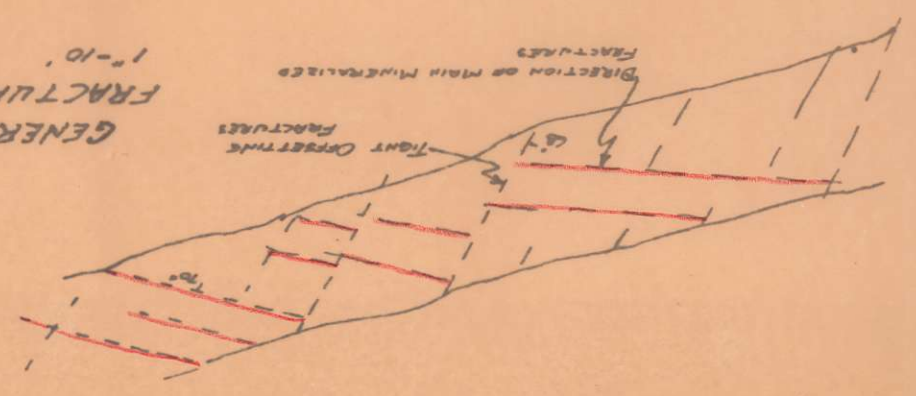
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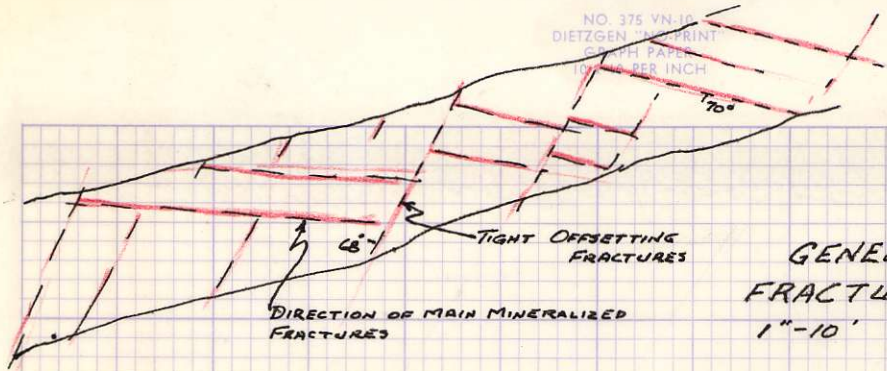
JERICHO
 DIAGRAMATIC SKETCH
 ADIT AND DIAMOND DRILL
 HOLES WITH GENERAL
 POSITION OF FAULT AND
 OF MINERALIZATION.
 1"=100'

INDICATED BY TEST HOLES

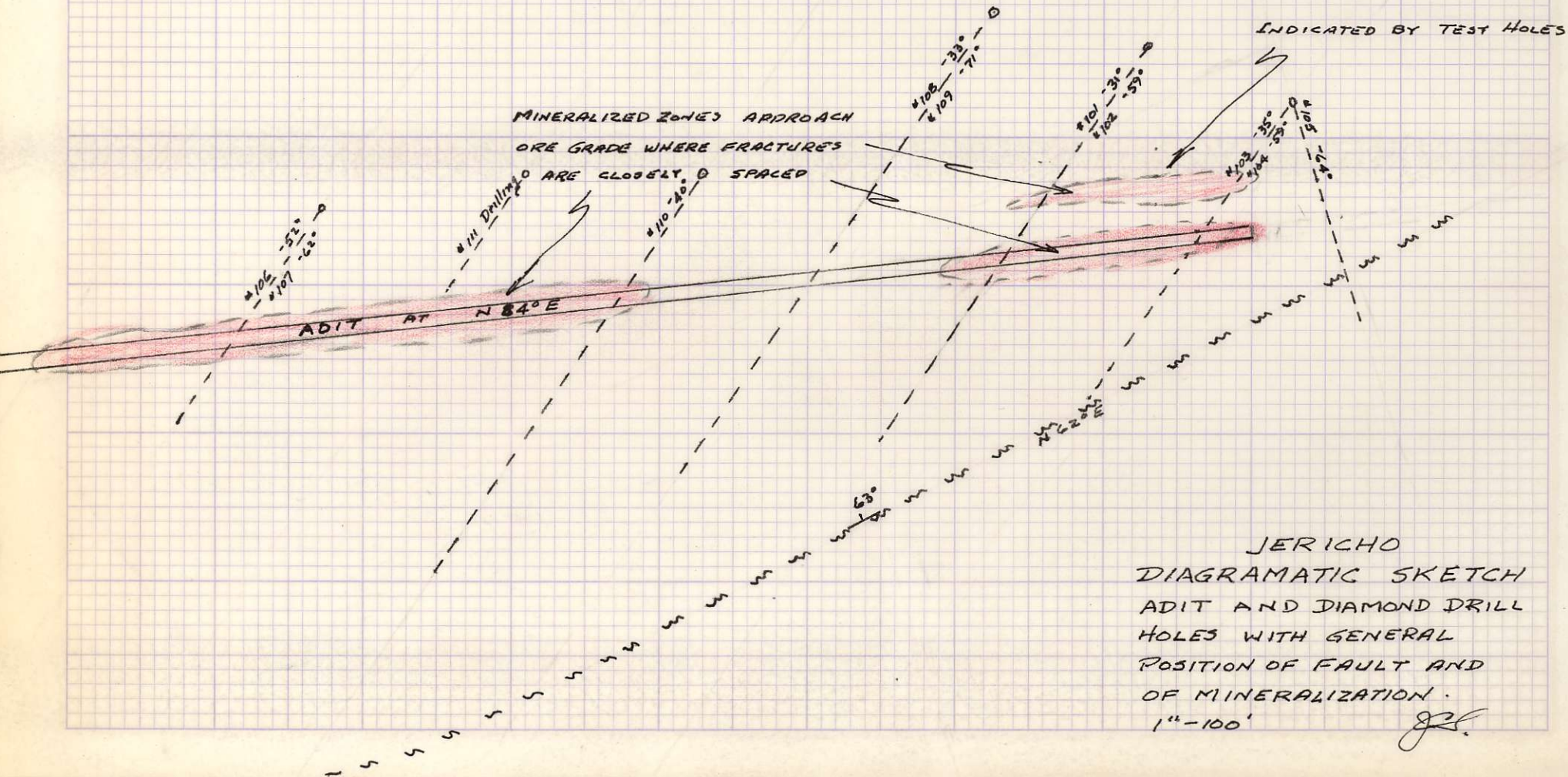


GENERALIZED
 FRACTURE PATTERN
 1"=10'





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J.D.